EVIDENCE-BASED TREATMENTS

Overview

The field of child and adolescent mental health is multi-disciplinary, with a diverse service system. Today there is a multitude of theories about which treatments work best, making it is very difficult for service providers to make informed choices. It is imperative that treatments for mental health disorders be examined, based on clinical research, in order to ascertain whether they are effective. Detailed study of mental health treatments allows for greater acceptability of the intervention, better replication in different settings, and greater specificity for trainees (Christophersen & Mortweet, 2001). Interventions that have strong empirical support are referred to as "evidence-based" treatments.

Evidence-based—or empirical—treatments are interventions for which there is consistent scientific evidence showing that they improve client outcomes (National Association of State Mental Health Program Directors Research Institute, Inc. Center for Evidence-Based Practices, 2000). In the field of children's mental health science and service delivery, the term *evidence-based* refers to a body of knowledge obtained through carefully implemented scientific methods, about the prevalence, incidence, or risk for mental disorders or the impact of treatments or services on mental health problems (National Institute of Mental Health [NIMH], 2001). It represents the quality and soundness of the scientific evidence regarding questions about etiology, distribution, or risk for disorders or about outcomes of care for children with mental health problems (NIMH). In the past, many decisions with important consequences have been uninformed by quality research findings. This form of decision-making lacks accountability. Evidence-based practices offer practitioners a different decision-making process, according them the satisfaction of staying on top of research findings and a means of making decisions which are publicly accountable. Evidence-based practices enable service providers to identify and utilize "best practices" in treatment (New York State Office for Mental Health, 2001).

In order for treatments to be considered evidence-based, they must be consistent with the characteristics of the evidence-based guidelines developed by the NIMH, highlighted in the Surgeon General's report on mental health (1999) and outlined by Burns et al. (1999).

- At least two control group design studies or a large series of single-case design studies;
- Minimum of two investigators;
- Use of a treatment manual;
- Uniform therapist training and adherence;
- True clinical samples of youth;
- Tests of clinical significance of outcomes applied;
- Both functioning and symptom outcomes reviewed; and
- Long-term outcomes beyond termination.

Recent debate has focused on the degree of support required for determining which interventions are of value in treating specific disorders (Lonigan et al., 1998). Table 1 shows the two classifications of research studies on treatments.

Table 1

Efficacy vs. Effectiveness

Effective (or well-established) treatments are those which have beneficial effects when delivered to heterogeneous samples of clinically referred individuals treated in clinical settings by clinicians other than researchers.
Efficacious (or clinical utility) studies are directed at establishing how well a particular intervention works in the environment and under the conditions in which treatment is typically offered.

Source: Lonigan et al., 1998.

Most efficacy studies are directed at establishing whether a particular intervention works and whether the research for the trial is conducted under tightly controlled condition (Lonigan et al., 1998). Interventions identified as efficacious can later be subject to effectiveness trials.

Distinguishing between these two classifications is significant because the evidence is frequently ambiguous. This may be because the evidence is preliminary, rather than well-established. In addition, treatments may be newer, and their long-term effects, still unclear. Assessments of the effectiveness of a treatment may vary and the patient's other medical conditions must be taken into account when considering what is an effective treatment.

The President's New Freedom Commission on Mental Health outlines the need to promote evidence-based practices (2003). Goal Five of the report outlines the need for advancing evidence-based practices by using dissemination and demonstration projects and by creating public-private partnerships to guide their implementation. Moreover, the report discusses the need to improve and expand the workforce, which provides evidence-based mental health services and supports. The report asserts that the U.S. must have a more effective system to bring scientific discovery to service providers, consumers, and families.

One of the major goals outlined in the Surgeon General's *National Action Agenda* for children's mental health (2000) is the continued development, dissemination, and implementation of scientifically proven prevention and treatment services in the field of children's mental health. Other action steps are identified, including increasing the research on proven treatments, practices, and services developed in the laboratory in order to assess their effectiveness in real-world settings. The need to evaluate model programs which can be disseminated and sustained in the community is also emphasized. Promotion of private and public partnerships to facilitate this dissemination is crucial. Unfortunately, the report indicates that there is a growing gap between knowledge and practice and between what is known through experience and what is actually implemented in many public mental health systems across the country.

Benefits of Evidence-based Treatments

"The best care results from the conscientious, explicit, and judicious use of current best evidence and knowledge of patient values by well-trained experienced clinicians" (Institute of Medicine, 2001, p. 76). Evidence-based treatments allow patients, clinicians, and families to see the difference between alternative treatment decisions and to ascertain what treatment approach best facilitates successful outcomes (Donald, 2002). Treatments that are evidence-based and research

driven can complement a clinician's experience. Evidence-based medicine has emerged as an invaluable method of informing clinical and policy decisions about the numerous faces and aspects of healthcare. Evidence-based medicine provides data for questions which do not have intuitive answers or for those items which may do "more harm than good" (Donald). It has significantly aided clinicians in the decision-making process by providing a fair, scientifically rigorous method of evaluating treatment options.

Evidence-based medicine has also assisted professional bodies in developing clearer and more concise working practices, as well as in establishing treatment guidelines and practices. The accumulated data for these treatments support their consideration as first-line treatment options (Nock et al., 2004). With literally hundreds of treatment approaches available, it is difficult for clinicians to select the most appropriate and effective intervention (Nock et al.). Professional accountability and technical complexity are two issues currently facing the medical community.

Over the past decade, medicine has come under increased scrutiny. Evidence-based medicine is considered a necessary tool for treating patients in a period in which demands for effective treatment have increased (Donald, 2002). Evidence-based medicine emerged from the notion that decisions about the care of individual patients should involve the conscientious and judicious use of current best evidence (Fonagy, 2000). Use of evidence-based medicine can be advantageous in that it brings all players in the medical industry together in the decision-making process. This can ultimately reduce conflict and even potentially reduce litigation.

The current emphasis in evidence-based medicine for mental health treatments is on promoting effective use of resources and simultaneously allowing for improvements in the clinician's knowledge base (Fonagy, 2000). Ethically, the strongest argument in support of this practice is that it allows the best-evaluated methods of health care to be identified.

Another driving force in the utilization of evidence-based medicine is the potential for cost savings (Fonagy, 2000). With rising awareness of mental health issues and a demand by purchasers to know they are obtaining the best treatment for the best price, emphasis on evidence-based practices is both practical and justified. Few people have time to conduct research and evaluate best practices. Evidence-based medicine provides a structured process for clinicians and patients to access information on what is effective. Treatment interventions produce the intended or expected results.

Limitations of Evidence-Based Treatments

Negative reactions have emerged due to the assessment of the practices surrounding evidence-based medicine and the utilization of evidence-based treatments. Currently, there are several obstacles to evidence-based decision-making.

One criticism pertains to the vast amount of information available to clinicians. The rapid emergence of data regarding evidence-based treatments has made it difficult for clinicians to both access and disseminate (Burns et al., 1999). While deluged with unstructured information, clinicians and decision-makers alike are able to identify few procedures or systems to enable them to find quickly and accurately the necessary information to address treatment concerns.

Another criticism relates to the fact that the evidence may be preliminary, rather than well established, thus the treatments may be so new that their long-term effects are not yet known. Accordingly, assessments of the effectiveness of a treatment may vary across studies, depending on

the population studied, the questions asked, or the methodology employed (Rodwin, 2001). Even when an area is carefully studied, there frequently is significant uncertainty and vagueness about what treatment is the most effective. In addition, the benefits and limitations of a particular treatment vary depending upon the child's other medical conditions. In these instances, there may be concessions between the effectiveness of the treatment and safety/quality of life issues (Rodwin).

In utilizing evidence-based treatments, clinicians need to be re-trained, first in using the science-based treatments and, second, in making them more usable for other practitioners (Burns et al., 1999). Despite the documentation of the efficacy of these treatments, these treatments have not been widely incorporated by training programs or practicing clinicians (Addis & Krasnow, as cited by Nock et al., 2004). Efforts to disseminate knowledge to stakeholder groups or implement evidence-based interventions have often failed partly due to their poor fit with the target audience or setting context. The issue of "poor fit" must be examined, along with a variety of issues, before evidence-based interventions can be effectively employed.

The variable quality of research findings makes it difficult for clinicians and policy makers to discriminate between them. Many of the studies utilized in evidence-based medicine have excluded very important variables such as training, staff turnover, minimal family involvement, and co-morbidity of conditions (Burns et al., 1999). Another argument made against evidence-based treatments is that they have been developed and tested in well-controlled research settings and may not be effective in actual clinical settings (Nock et al., 2004). Many unfavorable beliefs about the usefulness of evidence-based treatments beyond research settings emerge from the notion that these treatments must be administered rigidly without "…variation, creativity, or flexibility and without consideration of the individual differences with which the patients present" (Nock et al., p. 777).

In addition, the study process for particular treatment interventions can be long and painstaking, whereas policy decisions need to be made almost immediately. Although there are specific evidence-based treatments for mental disorders and recommendations for their use in official treatment guidelines, such as the *American Psychiatric Association Practice Guidelines for the Treatment of Psychiatric Disorders*, it is still very difficult to track the kinds of treatment methods actually being practiced (Donald, 2002).

Another issue surrounding evidence-based treatments is fidelity. Fidelity to a treatment modality raises questions as to how strictly treatment protocols or manuals must be followed and how this affects provider creativity, practice style, and individual treatment approaches (Chaffin & Freidrich, 2004). Specific, teachable, learnable skills and behaviors are emphasized in evidence-based treatments. However, utilization of practice guidelines that originate from a central agency can be intimidating and threatening. Implementation and utilization of evidence-based treatments require a deliberate and carefully planned approach by the provider or clinician. Effective implementation of evidence-based treatments depends upon adherence to the content and the therapeutic methods and processes (Chaffin & Freidrich). Even for well-developed interventions, with training materials and a documented training procedure, high fidelity implementation requires very intensive efforts. Key factors include adequate organizational supports, attention to the fit between the values of the program and those of the organization, and commitment to implement the program with fidelity (Chaffin & Freidrich).

Another concern surrounding the utilization of evidence-based treatments is the cost that must be appropriated for staffing, training, and evaluation. The information contained in this section is taken from a study published by the New Hampshire Center for Public Policy regarding

implementation of evidence-based treatments in New Hampshire (2007). As outlined in this study, the most significant impediment to implementation of evidence-based treatments is appropriate staffing. This becomes an issue due to the significant amount of training and consultation required to maintain treatment fidelity. For example, staff at rural agencies may have extensive travel and time away from their current job duties to attend the required trainings. Several evidence-based practices require specialized and costly types of training in order to credential providers. These costs can be very difficult to fund. Funding and coordinating training, particularly for proprietary evidence-based treatments, can be seen as a significant barrier. The cost of training and continuing supervision for credentialing may also be seen as an issue. Moreover, the cost and time associated with fidelity measurement and practice protocols can be high. It must be noted that the proprietary nature of some evidence-based treatments, with the monetary fees associated with training and certification, bears a cost that must be maintained and budgeted over time.

Issues for Consideration

Efforts to disseminate knowledge to stakeholder groups or implement evidence-based interventions must address a variety of factors in order to be successful. These issues, as outlined by the NIMH (2002), are discussed in the following list:

- *Differences between science and practice*. Dissemination and implementation efforts require the joining of two, very often distinct, communities. While scientific research seeks to first advance knowledge, clinical practice seeks to do what is immediately best for individual patients.
- *Understanding the target audience.* When disseminating new knowledge, understanding one's target audience is critical. In the mental health community, this target audience varies widely from policy makers and state administrations to local providers or family consumers.
- *The impact of culture.* The "fit" of new information or intervention models within a local context will likely facilitate or impede their implementation.
- *Individual information processing.* The accurate individual receipt and processing of information is critical to dissemination efforts; unfortunately, this process often goes unmeasured.
- *Organizational change.* Dissemination and implementation efforts should consider organizational change strategies, along with those targeting individual beliefs and behaviors, since providers are embedded within organizations and efforts towards change may be obstructed by administrative hurdles.

Implementation of evidence-based treatments takes more than training. Barriers surrounding policy, community, and structure must be addressed (Chaffin & Freidrich, 2004). Structural problems may include funding for adaptation of treatments, lack of incentives linking rewards to client outcomes, and lack of organizational demand for practice change (Chaffin & Freidrich). Misconceptions that evidence-based practices are inflexible and impersonal must be acknowledged and countered for there to be successful implementation. A crucial first step to counter such concerns is the dissemination of information regarding the benefits of evidence-based practices to public funding agencies, governing agencies, third-party payers, parents and professional organizations (Chaffin & Freidrich).

Cultural competency may also be a barrier to the implementation of evidence-based treatments. Evidence-based treatments frequently define the population served by factors such as age, diagnosis, presenting problems, culture, and ethnicity (New Hampshire Center for Public Policy, 2007). Evidence-based treatments must include sufficient information to indicate for whom the

treatment is best suited in terms of age, gender, or culture. A significant challenge for implementation of evidence-based treatments involves the determination of how best to incorporate them within the community (Blase & Fixen, 2003). This may conflict with the specified requirements of the evidence-based treatment and could potentially affect treatment fidelity. Accordingly, it is crucial that the evidence-based program complements the needs of the defined population, as well as the community (Blase & Fixen).

Recent Activity Surrounding Evidence-based Practices

There have been more than 1,500 published clinical trials on outcomes of psychotherapies for youth and more than 500 different named psychotherapies (Hoagwood, 2004). This includes six meta-analyses discussing the effects of these treatments and more than 300 published clinical trials on the safety and efficacy of psychotropic medication (Hoagwood). There have also been fourteen major reviews of these interventions. Moreover, 22 federal agencies have endorsed or discussed the use of evidence-based treatments.

These federal agencies include the:

- Administration for Children and Families,
- Agency for Healthcare Research and Quality,
- Center for Mental Health Services,
- National Institute of Health,
- National Institute for Mental Health,
- Health and Human Services Department,
- Central Intelligence Agency, and
- Department of Justice.

In 1998, approximately $11.75 billion was spent for mental health services for children (Huang et al., 2003). This represents a three-fold increase since 1986 (Sturm, as cited by Huang et al.). The size of the expenditures raises questions about how these dollars are being spent and whether resources are being used effectively. As the evidence increases to identify practices that have proven effectiveness, policy must also address both the selection and funding of these services. Care must be taken to fund only those services that are found to be effective or promising.

Effective prevention interventions for violence prevention, school-based prevention, and social competency enhancement have also been clearly delineated. Information about the cost-effectiveness of these interventions is also being gathered to show cost per participant and crime victim benefit. A significant benefit of this research is that ineffective psychosocial treatments for mental health disorders are being identified.

Virginia is also moving towards enhancing the utilization of evidence-based treatments in the public mental health arena. Virginia's Department of Mental Health, Mental Retardation and Substance Abuse Services (DMHMRSAS) promotes the development of evidence-based practices. Evidence-based practices are expected and required, with incentives and support for providers to learn and use these practices (DMHMRSAS, 2004). The Department collaborates with localities in developing and implementing community-based programs that utilize evidence-based practices.

In November 2005, the Virginia Commission on Youth approved a recommendation to co-sponsor a statewide conference with DMHMRSAS. In 2006 and 2007, an Advisory Committee comprised of state and local agencies, private providers, state university representatives and other

stakeholders worked in cooperation to plan the *Conference on Systems of Care and Evidence-based Treatments: Tools that Work for Youth and Families*. The event was designed around behavioral health care professionals seeking information on evidence-based practices for children and adolescents with mental health disorders. The utilization and implementation of evidence-based treatments in diverse practice settings was a primary conference topic, as was the systems of care philosophy. This philosophy, which is recognized by the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), emphasizes the organization of community-based services and supports which meet the diverse needs of youth with serious behavioral health needs. The long-range goal of Systems of Care is to help youth function better at home, in school, in the community, and throughout life.

The conference was held September 16-18, 2007 in Roanoke, Virginia with over 500 behavioral healthcare, juvenile justice, child welfare and education professionals, caregivers, families and youth in attendance. Continuing education credits were offered to the conference attendees.

Conclusion

Effective psychosocial treatments are available for treating a wide range of commonly encountered disorders in both controlled research trials and real-world settings. However, these treatments are not widely used by clinicians in the field. The conclusion is that the development of evidence-based treatments does not necessarily lead to their use (Donald, 2002). Dissemination of information about treatments from research settings to actual clinical practice is a vital step, without which evidence-based treatments will be used only by clinical researchers, thus depriving the general public the benefits of these psychotherapeutic advances.

The majority of mental health providers agree on the necessity of providing empirical support for their interventions. Additionally, the public expects to receive effective treatment from mental health professionals. Therefore, one would expect clinicians to incorporate and accept evidence-based treatments into practice settings.

Several factors have been identified to account for this inconsistency. First, the training that mental health professionals receive does not require comprehensive training in evidence-based treatments; consequently, when they enter practice, they do not have the skills to administer these treatments (Donald, 2002). Second, continuing education programs do not require training in evidence-based treatments; therefore, there is no way to incorporate treatments from research settings to clinical practice. Third, many clinicians in the field are negatively biased toward evidence-based treatments (Donald). Unfortunately, the failure to train practitioners in evidence-based treatments may result in a lack of availability of these treatments (Sanderson, 2002).

Evidence-based practices can be utilized in real-world settings and are effective for children suffering and at risk for suffering with mental disorders (Donald, 2002). The failure to disseminate evidence-based treatment information to clinical practitioners in the field has resulted in the lack of availability of many of these treatments. This, in turn, has caused a lack of training for evidence-based treatments for mental disorders in children. With increased accountability in the medical field, the failure to train practitioners in evidence-based treatments will prevent effective utilization and adoption of effective evidence-based treatments.

Evidence-based treatments have been developed with the express purpose of improving the treatment of child and adolescent mental health disorders (Nock et al., 2004). While evidence-

based research may suggest that there is limited variability in the patients and the methods used, clinicians can incorporate these well-documented treatments, while still adequately addressing the individual differences of the patient (Nock et al.). The perception surrounding evidence-based treatments is that a complete body of research must exist for a particular mental health disorder before the treatment can be employed. However, the rationale behind evidence-based treatments is that the best-supported and available practices in the field of children's mental health should be utilized (Chaffin & Friedrich, 2004).

Sources

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Additional Resources

SAMHSA's *National Registry of Evidence-based Programs and Practices*
http://nrepp/samhsa.gov

Virginia Commission on Youth
Conference on Systems of Care and Evidence-based Treatments: Tools that Work for Youth and Families
http://coy.state.va.us